

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1           1.       (Cancelled)

1           2.       (Previously Presented) The method of claim 12, wherein sending the request  
2 comprises sending the request in a random access channel.

1           3.       (Original) The method of claim 2, wherein sending the request comprises sending  
2 a predefined code in a random access channel of an Enhanced General Packet Radio Services  
3 system.

1           4.       (Original) The method of claim 3, wherein sending the code comprises sending  
2 the code in a channel selected from the group consisting of a RACH, PRACH, and CPRACH.

1           5.       (Cancelled)

1           6.       (Previously Presented) A method of establishing a call in a wireless network,  
2 comprising:  
3               sending a request for a packet-switched call over the wireless network;  
4               communicating control signaling in a traffic channel of the wireless network to  
5 establish the packet-switched call; and  
6               retrieving a pre-assigned code to send in the request,  
7               wherein retrieving the pre-assigned code comprises retrieving a random access  
8 channel mobile station code.

1           7.       (Previously Presented) The method of claim 12, wherein communicating the  
2 control signaling comprises communicating the control signaling in a packet data traffic channel.

1           8.       (Original) The method of claim 7, wherein communicating the control signaling  
2 comprises communicating the control signaling in PDTCH bursts of an Enhanced General Packet  
3 Radio Services system.

1           9.       (Currently Amended) A method of establishing a call in a wireless network,  
2 comprising:  
3               sending a request for a packet-switched call over the wireless network; and  
4               communicating control signaling in a traffic channel of the wireless network to  
5 establish the packet-switched call,  
6               ~~wherein communicating the control signaling comprises communicating the~~  
7 ~~control signaling in a packet data traffic channel,~~  
8               wherein communicating the control signaling comprises communicating the  
9 control signaling in a packet data traffic channel mapped to a dedicated physical channel.

1           10.      (Original) The method of claim 9, further comprising communicating bearer  
2 traffic in another traffic channel mapped to the dedicated physical channel.

1           11.      (Original) The method of claim 10, wherein communicating the control signaling  
2 comprises communicating the control signaling in a PDTCH, and wherein communicating the  
3 bearer traffic comprises communicating the bearer traffic in a TCH, the PDTCH and TCH  
4 defined according to an Enhanced General Packet Radio Services protocol.

1           12.      (Previously Presented) A method of establishing a call in a wireless network,  
2 comprising:  
3               sending a request for a packet-switched call over the wireless network; and  
4               communicating control signaling in a traffic channel of the wireless network to  
5 establish the packet-switched call,  
6               wherein communicating the control signaling comprises communicating Session  
7 Initiation Protocol messages in the traffic channel.

1           13.   (Previously Presented) The method of claim 12, wherein communicating the  
2 control signaling comprises communicating a Session Initiation Protocol Invite request in the  
3 traffic channel.

1           14.   (Cancelled)

1           15.   (Currently Amended) ~~The method of claim 14,~~ A method of establishing a call in  
2 a wireless network, comprising:

3                   sending a request for a packet-switched call over the wireless network;  
4                   communicating control signaling in a traffic channel of the wireless network to  
5 establish the packet-switched call; and  
6                   sending a release message to terminate the packet-switched call in a traffic  
7 channel,

8                   wherein sending the release message comprises sending a Session Initiation  
9 Protocol Bye message in the traffic channel.

1           16.   (Cancelled)

1           17.   (Currently Amended) ~~The method of claim 16,~~ A method of establishing a call in  
2 a wireless network, comprising:

3                   sending a request for a packet-switched call over the wireless network;  
4                   communicating control signaling in a traffic channel of the wireless network to  
5 establish the packet-switched call; and  
6                   sending quality-of-service related messages in a traffic channel,

7                   wherein sending the quality-of-service related messages comprises sending  
8 Resource Reservation Protocol messages.

1           18.   (Previously Presented) The method of claim 12, wherein communicating the  
2 control signaling comprises communicating the control signaling in PDTCH bursts, the method  
3 further comprising communicating bearer traffic in TCH bursts.

1           19.   (Previously Presented) The method of claim 12, wherein communicating the  
2 control signaling comprises communicating the control signaling in PDTCH bursts, the method  
3 further comprising communicating bearer traffic in PDTCH bursts.

1           20.   (Cancelled)

1           21.   (Currently Amended) The article of claim [[22]] 23, wherein the instructions  
2 when executed cause the controller to send the control signaling selected from the group  
3 consisting of RACH, PRACH, and CPRACH.

1           22.   (Cancelled)

1           23.   (Currently Amended) ~~The article of claim 22,~~ An article comprising one or more  
2 storage media containing instructions that when executed cause a controller to:

3                   send control signaling to request a channel for a packet-switched call over a  
4 wireless network;

5                   add a predetermined code into the control signaling to identify the call as a  
6 packet-switched call; and

7                   communicate packet-switched call control signaling in traffic channels of the  
8 wireless network,

9                   wherein the instructions when executed cause the controller to communicate the  
10 packet-switched call control signaling by communicating Session Initiation Protocol messages in  
11 traffic channels of the wireless network.

1           24.   (Original) The article of claim 23, wherein the instructions when executed cause  
2 the controller to communicate the Session Initiation Protocol messages in PDTCH bursts of a  
3 General Packet Radio Services system.

1           25.    (Original) The article of claim 23, wherein the instructions when executed cause  
2   the controller to communicate a Session Initiation Protocol Invite message.

1           26.    (Original) The article of claim 25, wherein the instructions when executed cause  
2   the controller to receive response messages to the Invite message.

1           27.    (Original) The article of claim 23, wherein the instructions when executed cause  
2   the controller to communicate a Session Initiation Protocol Bye message to release a call.

1           28.    (Original) The article of claim 23, wherein the instructions when executed cause  
2   the controller to communicate messages to provide a supplementary service.

1           29. – 30. (Cancelled)

1           31.    (Previously Presented) A mobile station for use in a wireless communications  
2   system having base stations, comprising:

3                   a storage element storing a predetermined code associated with packet-switched  
4   calls; and

5                   a controller to send control signaling to one of the base stations over a wireless  
6   link to set up a packet-switched call,

7                   the control signaling containing the predetermined code, the predetermined code  
8   to identify the call as a packet-switched call,

9                   wherein the control signaling comprises a random access channel, the random  
10   access channel containing the predetermined code,

11                  wherein the random access channel comprises a packet random access channel,  
12   the packet random access channel containing the predetermined code.

1           32.    (Previously Presented) The mobile station of claim 31, wherein the packet  
2   random access channel comprises a COMPACT packet random access channel, the COMPACT  
3   packet random access channel containing the predetermined code.

1           33.   (Cancelled)

1           34.   (Previously Presented) A radio network control system, comprising:  
2                   an interface to a wireless link capable of communicating with a mobile station;  
3   and  
4                   a controller adapted to receive a request to set up a packet-switched call over the  
5   wireless link,  
6                   the controller further adapted to assign a logical channel combination in response  
7   to the request,  
8                   wherein the logical channel combination comprises TCH + FACCH + SACCH +  
9   PDTCH + PACCH + PTCCH.

1           35.   (Previously Presented) The radio network control system of claim 34, wherein  
2   the controller is adapted to communicate Session Initiation Protocol messages in PDTCH bursts.

1           36.   (Original) The radio network control system of claim 34, wherein the controller  
2   is adapted to communicate a success indication of a packet-switched call session in a PACCH  
3   burst.

1           37.   (Original) The radio network control system of claim 34, wherein the controller  
2   is adapted to communicate radio resource management signaling in a PACCH burst to indicate a  
3   state of the packet-switched call.

1           38.   (Cancelled)

1           39.   (Previously Presented) A data signal embodied in a carrier wave and containing  
2 instructions that when executed cause a system in a wireless network to:  
3                   receive control signaling to set up a packet-switched call over the wireless  
4 network, the control signaling carried in a first traffic channel;  
5                   establish the packet-switched call over the wireless network; and  
6                   communicate bearer data in a second traffic channel.

1           40.   (Original) The data signal of claim 39, wherein the control signaling is carried in  
2 a PDTCH and the bearer data is carried in a TCH.

1           41.   (Currently Amended) A data signal embodied in a carrier wave and containing  
2 instructions that when executed cause a system in a wireless network to:  
3                   receive control signaling to set up a packet-switched call over the wireless  
4 network, the control signaling carried in a first packet data traffic channel;  
5                   establish the packet-switched call over the wireless network; and  
6                   communicate bearer data in the first packet data traffic channel.

1           42.   (Currently Amended) A method of establishing a call in a wireless network,  
2 comprising:  
3                   sending a request for a packet-switched call over the wireless network; and  
4                   communicating control signaling in a traffic channel of the wireless network to  
5 establish the packet-switched call,  
6                   wherein communicating the control signaling in the traffic channel comprises  
7 communicating a control message in [[the]] a packet data traffic channel, the control message  
8 according to a protocol for establishing a packet-switched call over an Internet Protocol network.

1           43.   (Previously Presented) The data signal of claim 39, wherein receiving the control  
2 signaling comprises receiving a Session Initiation Protocol message carried in the first traffic  
3 channel.

1           44.   (Cancelled)

1           45.   (Currently Amended) ~~The article of claim 21,~~ An article comprising one or more  
2 storage media containing instructions that when executed cause a controller to:  
3               send control signaling to request a channel for a packet-switched call over a  
4 wireless network;  
5               add a predetermined code into the control signaling to identify the call as a  
6 packet-switched call; and  
7               communicate packet-switched call control signaling in traffic channels of the  
8 wireless network,  
9               wherein the instructions when executed cause the controller to send the control  
10 signaling selected from the group consisting of RACH, PRACH, and CPRACH,  
11               wherein the predetermined code comprises a mobile station code.